

kuvshinov 1-intron.ST25  
SEQUENCE LISTING

<110> UniCrop Ltd

<120> A molecular mechanism for gene containment in plants

<130> kuvshinov 1-intron

<160> 13

<170> PatentIn version 3.2

<210> 1

<211> 357

<212> DNA

<213> artificial sequence/Bacillus amyloliquefaciens

<220>

<223> Plant adapted synthetic coding sequence of barnase gene

<400> 1

cgcgcatcca tggcacaagt tatcaacacc tttgatggag ttgctgacta ccttcagacc	60
taccataagc ttccagataa ctacatcacc aagtctgagg ctccaggctct tggatggggtt	120
gcttctaagg gaaaccttgc tgatgtcgct ccaggaaagt ctatcggagg tgatatcttc	180
tctaacaggg agggaaagct tccaggaaag tctggaagga cctggaggga ggctgatatc	240
aactacacct ctggattcag gaactctgat aggatccttt actcttccga ctggcttatac	300
tacaagacca ctgaccacta ccagaccttc accaagatcc ggtgagagct cgagcgc	357

<210> 2

<211> 299

<212> DNA

<213> artificial sequence/Bacillus amyloliquefaciens

<220>

<223> Plant adapted synthetic coding sequence of barstar gene

<400> 2

cgcgcatcct gatcatgaag aaggctgtta tcaacggtga gcaaattagg tctatctctg	60
atcttcacca gaccttaag aaggagcttg ctcttccaga gtactacgga gagaaccttg	120
atgctctatg ggattgcctt accggatggg tggagtaccc acttgttttg gagtggaggc	180
agtttgagca gtctaagcag ctactgaga atggagctga gagtgttctt caggttttcc	240
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<210> 3

<211> 529

<212> DNA

<213> artificial sequence

<220>

<223> intron of uidA gene

<400> 3

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actagtttac aaacgtttcc ctatataaac ctcctttgt tctactgcttt cctccctgct	60
gtggcttctc tccgaagttc atcccgggtcc acctgcaaaa taagtaataa gataaagtaa	120
aaaagttagt atggctcaag ttattaatac ttttgatgga gttgctgatt atcttcaaac	180
ttatcataaa cttccagata attatattac taaatctgaa gctcaagctc ttggatgggt	240
tgcttctaaa ggaaatcttg ctgatgttgc tccaggaaaa tctattggag gagatatttt	300
ttcaaataga gaaggaaaac ttccaggaaa atctggaaga acatggagag aagctgatat	360
taattatact tctggattta gaaattcaga tagaatcctt tattcatctg attggcttat	420
ttataaaact acagatcatt atcaaacttt tacaaaaatt agataaatat ttgtattttt	480
tgtatgttgt gatcattaat aaataaataa atacatacct cttctgcag	529

<210> 4  
 <211> 52  
 <212> DNA  
 <213> artificial sequence

<220>  
 <223> the last (third exon) of uid gene

<400> 4	
gtggaccggg atgaacttcg gagagaagcc acagcagggg ggaaagcagt ga	52

<210> 5  
 <211> 51  
 <212> DNA  
 <213> artificial sequence

<220>  
 <223> 5'UTR of barnase gene

<400> 5	
catcccgggtc cacctgcaaa ataagtaata agataaagta aaaaagttag t	51

<210> 6  
 <211> 38  
 <212> DNA  
 <213> artificial sequence

<220>  
 <223> 3' flanking signal of the intron of uidA

<400> 6	
actaactttt ttactttatc ttattactta ttttgcag	38

<210> 7  
 <211> 474  
 <212> DNA  
 <213> artificial sequence

<220>  
 <223> 35 S promoter of CaMV

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```

<400> 7
gcggaattca attgatcaac atggtggagc acgacactct cgtctactcc aagaatatca    60
aagatacagt ctcagaagac cagaggggcta ttgagacttt tcaacaaagg gtaatatcgg    120
gaaacctcct cggattccat tgcccagcta tctgtcactt catcgaaagg acagtagaaa    180
aggaagatgg cttctacaaa tgccatcatt gcgataaagg aaaggctatc gttcaagaat    240
gcctctaccg acagtgggcc caaagatgga cccccaccca cgaggaacat cgtggaaaaa    300
gaagacgttc caaccacgtc ttcaaagcaa gtggattgat gtgatatctc cactgacgta    360
agggatgacg cacaatccca ctatactcta tctactgatag agtctatata agactctatc    420
actgatagag tgaactctat cactgataga gtcgacggat ccatggaatc cgcg          474

```

```

<210> 8
<211> 10
<212> DNA
<213> artificial sequence

```

```

<220>
<223> sequence upstream the PstI site

```

```

<400> 8
cgcttttctg
10

```

```

<210> 9
<211> 10
<212> DNA
<213> artificial sequence

```

```

<220>
<223> changed sequence upstream the pstI site

```

```

<400> 9
tgccttcctg
10

```

```

<210> 10
<211> 10
<212> DNA
<213> artificial sequence

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<220>
<223> polyadenylation signal in transcription unit near the upstream
      element (NUE)

```

```

<400> 10
ttattttattt
10

```

```

<210> 11
<211> 18
<212> DNA
<213> artificial sequence

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```

<220>
<223> Forward GUS-LcF primer

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<400> 11  
atcagcggtg gtgggaaa 18

<210> 12  
<211> 18  
<212> DNA  
<213> artificial sequence

<220>  
<223> reverse GUS-LcR primer

<400> 12  
acgaatatct gcatcggc 18

<210> 13  
<211> 716  
<212> DNA  
<213> artificial sequence

<220>  
<223> Vigna mungo (SH-EP promoter), Bacillus amyloliquefaciens (barnase gene), Escherichia coli (uidA gene)

<400> 13  
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caattctctg agtgcgtgcc acagtttggg atcttcatga ttgctcattg ttcattgcca 120  
taaggaacat gtaacttcct cttttattta ttattgcttt tgttttcttc tcactagttt 180  
acaaacgttt ccctatataa accctccttt gttcactgct ttcttcctg ctgtggcttc 240  
tctccgaagt tcatcccggt ccacctgcaa aataagtaat aagataaagt aaaaaagtta 300  
gtatggctca agttattaat acttttgatg gagttgctga ttatcttcaa acttatcata 360  
aactccaga taattatatt actaaatctg aagctcaagc tcttgatgg gttgcttcta 420  
aaggaaatct tgctgatgtt gctccaggaa aatctattgg aggagatatt tttcaaata 480  
gagaaggaaa acttccagga aaatctggaa gaacatggag agaagctgat attaattata 540  
cttctggatt tagaaattca gatagaattc ttattcatc tgattggctt atttataaaa 600  
ctacagatca ttatcaaact ttacaaaaa ttagataaat atttgatatt tttgtatgtt 660  
gtgatcatta ataaataaat aaatacatc ctcttctgca gcaggaaggc agccga 716